Review of 'Philosophy in a New Century' by John Searle (2008) (review revised 2019)

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ABSTRACT

Before commenting on the book, I offer comments on Wittgenstein and Searle and the logical structure of rationality. The essays here are mostly already published during the last decade (though some have been updated), along with one unpublished item, and nothing here will come as a surprise to those who have kept up with his work. Like W, he is regarded as the best standup philosopher of his time and his written work is solid as a rock and groundbreaking throughout. However, his failure to take the later W seriously enough leads to some mistakes and confusions. Just a few examples: on p7 he twice notes that our certainty about basic facts is due to the overwhelming weight of reason supporting our claims, but W showed definitively in 'On Certainty' that there is no possibility of doubting the true-only axiomatic structure of our System 1 perceptions, memories and thoughts, since it is itself the basis for judgment and cannot itself be judged. In the first sentence on p8 he tells us that certainty is revisable, but this kind of 'certainty', which we might call Certainty2, is the result of extending our axiomatic and nonrevisable certainty (Certainty1) via experience and is utterly different as it is propositional (true or false). This is of course a classic example of the "battle against the bewitchment of our intelligence by language" which W demonstrated over and over again. One word- two (or many) distinct uses.

His last chapter "The Unity of the Proposition" (previously unpublished) would also benefit greatly from reading W's "On Certainty" or DMS's two books on OC (see my reviews) as they make clear the difference between true only sentences describing S1 and true or false propositions describing S2. This strikes me as a far superior approach to S's taking S1 perceptions as propositional since they only become T or F after one begins thinking about them in S2. However, his point that propositions permit statements of actual or potential truth and falsity, of past and future and fantasy, and thus provide a huge advance over pre or protolinguistic society, is cogent. As he states it "A proposition is anything at all that can determine a condition of satisfaction…and a condition of satisfaction… is that such and such is the case." Or, one needs to add, that might be or might have been or might be imagined to be the case.

Overall, PNC is a good summary of the many substantial advances over Wittgenstein resulting from S's half century of work, but in my view, W still is unequaled once you grasp what he is saying. Ideally, they should be read together: Searle for the clear coherent prose and generalizations, illustrated with W's perspicacious examples and brilliant aphorisms. If I were much younger I would write a book doing exactly that.

Those wishing a comprehensive up to date framework for human behavior from the modern two systems view may consult my book 'The Logical Structure of Philosophy, Psychology, Mind and Language in Ludwig Wittgenstein and John Searle' 2nd ed (2019). Those interested in more of my writings may see 'Talking Monkeys--Philosophy, Psychology, Science, Religion and Politics on a Doomed Planet--Articles and Reviews 2006-2019 3rd ed (2019) and Suicidal Utopian Delusions in the 21st Century 4th ed (2019).

" But I did not get my picture of the world by satisfying myself of its correctness: nor do I have it because I am satisfied of its correctness. No: it is the inherited background against which I distinguish between true and false." Wittgenstein OC 94

"Now if it is not the causal connections which we are concerned with, then the activities of the mind lie open before us." Wittgenstein "The Blue Book" p6 (1933)

"Nonsense, Nonsense, because you are making assumptions instead of simply describing. If your head is haunted by explanations here, you are neglecting to remind yourself of the most important facts." Wittgenstein Z 220

"Philosophy simply puts everything before us and neither explains nor deduces anything...One might give the name `philosophy' to what is possible before all new discoveries and inventions." Wittgenstein PI 126

"What we are supplying are really remarks on the natural history of man, not curiosities; however, but rather observations on facts which no one has doubted and which have only gone unremarked because they are always before our eyes." Wittgenstein RFM I p142

"The aim of philosophy is to erect a wall at the point where language stops anyway." Wittgenstein Philosophical Occasions p187

"The limit of language is shown by its being impossible to describe a fact which

corresponds to (is the translation of) a sentence without simply repeating the sentence (this has to do with the Kantian solution to the problem of philosophy)." Wittgenstein CV p10 (1931)

"The greatest danger here is wanting to observe oneself." LWPP1, 459

“Could a machine process cause a thought process? The answer is: yes. Indeed, only a machine process can cause a thought process, and ‘computation’ does not name a machine process; it names a process that can be, and typically is, implemented on a machine.” Searle PNC p73

“…the characterization of a process as computational is a characterization of a physical system from outside; and the identification of the process as computational does not identify an intrinsic feature of the physics, it is essentially an observer relative characterization.” Searle PNC p95

“The Chinese Room Argument showed that semantics is not intrinsic to syntax. I am now making the separate and different point that syntax is not intrinsic to physics.” Searle PNC p94

“The attempt to eliminate the homunculus fallacy through recursive decomposition fails, because the only way to get the syntax intrinsic to the physics is to put a homunculus in the physics.” Searle PNC p97

“But you cannot explain a physical system such as a typewriter or a brain by identifying a pattern which it shares with its computational simulation, because the existence of the pattern does not explain how the system actually works as a physical system. …In sum, the fact that the attribution of syntax identifies no further causal powers is fatal to the claim that programs provide causal explanations of cognition… There is just a physical mechanism, the brain, with its various real physical and physical/mental causal levels of description.” Searle PNC p101-103

“In short, the sense of ‘information processing’ that is used in cognitive science is at much too high a level of abstraction to capture the concrete biological reality of intrinsic intentionality…We are blinded to this difference by the fact that the same sentence ‘I see a car coming toward me,’ can be used to record both the visual intentionality and the output of the computational model of vision…in the sense of ‘information’ used in cognitive science, it is simply false to say that the brain is an information processing device.” Searle PNC p104-105

"Can there be reasons for action which are binding on a rational agent just in virtue of the nature of the fact reported in the reason statement, and independently of the agent's desires, values, attitudes and
evaluations? ...The real paradox of the traditional discussion is that it tries to pose Hume's guillotine, the rigid fact- value distinction, in a vocabulary, the use of which already presupposes the falsity of the distinction." Searle PNC p165-171

"…all status functions and hence all of institutional reality, with the exception of language, are created by speech acts that have the logical form of Declarations…the forms of the status function in question are almost invariably matters of deontic powers…to recognize something as a right, duty, obligation, requirement and so on is to recognize a reason for action…these deontic structures make possible desire-independent reasons for action…The general point is very clear: the creation of the general field of desire-based reasons for action presupposed the acceptance of a system of desire-independent reasons for action." Searle PNC p34-49

"Some of the most important logical features of intentionality are beyond the reach of phenomenology because they have no immediate phenomenological reality… Because the creation of meaningfulness out of meaninglessness is not consciously experienced…it does not exist…This is… the phenomenological illusion." Searle PNC p115-117

"Consciousness is causally reducible to brain processes…and consciousness has no causal powers of its own in addition to the causal powers of the underlying neurobiology…But causal reducibility does not lead to ontological reducibility…consciousness only exists as experienced…and therefore it cannot be reduced to something that has a third person ontology, something that exists independently of experiences." Searle PNC 155-6

"…the basic intentional relation between the mind and the world has to do with conditions of satisfaction. And a proposition is anything at all that can stand in an intentional relation to the world, and since those intentional relations always determine conditions of satisfaction, and a proposition is defined as anything sufficient to determine conditions of satisfactions, it turns out that all intentionality is a matter of propositions." Searle PNC p193

Before commenting in detail on Philosophy in a New Century (PNC) I will first offer some comments on philosophy (descriptive psychology) and its relationship to contemporary psychological research as exemplified in the works of Searle (S) and Wittgenstein (W), since I feel that this is the best way to place Searle or any

commentator on behavior, in proper perspective.

Though S does not say and seems to be largely unaware, the bulk of his work follows directly from that of W, even though he often criticizes him. To say that Searle has carried on W's work is not to say that it is a direct result of W study, but rather that because there is only ONE human psychology (for the same reason there is only ONE human cardiology), that anyone accurately describing behavior must be voicing some variant or extension of what W said (as they must if they are both giving correct descriptions of behavior). I find most of S foreshadowed in W, including versions of the famous Chinese room argument against Strong AI and related issues which are the subjects of Chaps 3-5. Incidentally, if the Chinese Room interests you then you should read Victor Rodych's xlnt, but virtually unknown, supplement on the CR--"Searle Freed of Every Flaw". Rodych has also written a series of superb papers on W's philosophy of mathematics --i.e., the EP (Evolutionary Psychology) of the axiomatic System 1 ability of counting up to 3, as extended into the endless System 2 SLG's (Secondary Language Games) of math. W's insights into the psychology of math provide an excellent entry into intentionality. I will also note that nobody who promotes Strong AI, the multifarious versions of behaviorism, computer functionalism, CTM (Computational Theory of Mind) and Dynamic Systems Theory (DST), seems to be aware that W's Tractatus can be viewed as the most striking and powerful statement of their viewpoint ever penned (i.e., behavior (thinking) as the logical processing of facts--i.e., information processing).

Of course, later (but before the digital computer was a gleam in Turing's eye) W described in great detail why these were incoherent descriptions of mind that must be replaced by psychology (or you can say this is all he did for the rest of his life). S however makes little reference to W's prescient statement of mind as mechanism, and his destruction of it in his later work. Since W, S has become the principal deconstructor of these mechanical views of behavior, and the most important descriptive psychologist (philosopher), but does not realize how completely W anticipated him nor, by and large, do others (but see the many papers and books of Proudfoot and Copeland on W, Turing and AI). S's work is vastly easier to follow than W's, and though there is some jargon, it is mostly spectacularly clear if you approach it from the right direction. See my reviews of W and other books for more details.

Wittgenstein is for me easily the most brilliant thinker on human behavior. His work as a whole shows that all behavior is an extension of innate true-only axioms and that our conscious ratiocination (System 2) (S2) emerges from unconscious

machinations (System 1) (S1). See "On Certainty"(OC) for his final extended treatment of this idea-and my review thereof for preparation. His corpus can be seen as the foundation for all description of animal behavior, revealing how the mind works and indeed must work. The "must" is entailed by the fact that all brains share a common ancestry and common genes and so there is only one basic way they work, that this necessarily has an axiomatic structure, that all higher animals share the same evolved psychology based on inclusive fitness, and that in humans this is extended into a personality (a cognitive or phenomenological illusion) based on throat muscle contractions (language) that evolved to manipulate others (with variations that can be regarded as trivial).

Arguably, all of W's and S's work is a development of or variation on these ideas. Another major theme here, and of course in all discussion of human behavior, is the need to separate the genetically programmed automatisms, which underlie all behavior, from the effects of culture. Though few philosophers, psychologists, anthropologists, sociologists etc., explicitly discuss this in a comprehensive way, it can be seen as the major problem they are dealing with. I suggest it will prove of the greatest value to consider all study of higher order behavior as an effort to tease apart not only fast and slow thinking (e.g., perceptions and other automatisms vs. dispositions- S1 and S2--see below), but nature and nurture.

What W laid out in his final period (and throughout his earlier work in a less clear way) are the foundations of evolutionary psychology (EP), or if you prefer, psychology, cognitive linguistics, intentionality, higher order thought or just animal behavior. Sadly, almost nobody seems to realize that his works are a unique textbook of descriptive psychology that is as relevant now as the day it was written. He is almost universally ignored by psychology and other behavioral sciences and humanities, and even those few who have more or less understood him, have not realized the extent of his anticipation of the latest work on EP and cognitive illusions (Theory of Mind, framing, the two selves of fast and slow thinking etc., -- see below). Searle's work as a whole provides a stunning description of higher order social behavior that is possible because of the recent evolution of genes for dispositional psychology, while the later W shows how it is based on true only unconscious axioms of S1 which evolved into conscious dispositional propositional thinking of S2.

I suggest the key to W is to regard his corpus as the pioneering effort in deciphering our EP, seeing that he was describing the two selves of S1 and S2 and the multifarious language games of fast and slow thinking, and by starting from his 3rd period works and reading backwards to the Proto-Tractatus. It should also be clear

that insofar as they are coherent and correct, all accounts of behavior are describing the same phenomena and ought to translate easily into one another. Thus, the recently fashionable themes of "Embodied Mind" and "Radical Enactivism" should flow directly from and into W's work (and they do). However, almost nobody is able to follow his example of avoiding jargon and sticking to perspicuous examples, so even the redoubtable Searle has to be filtered and translated to see that this is true, and even he does not get how completely W has anticipated the latest work in fast and slow, two-self embodied thinking (writing, speaking, acting).

W can also be regarded as a pioneer in evolutionary cognitive linguistics—which can be regarded as the Top Down analysis of the mind and its evolution via the careful analysis of examples of language use in context. He exposes the many varieties of language games and the relationships between the primary games of the true-only unconscious, pre or protolinguistic axiomatic fast thinking of perception, memory and reflexive thinking, emotions and acts (often described as the subcortical and primitive cortical reptilian brain first-self, mirror neuron functions), and the later evolved higher cortical dispositional linguistic conscious abilities of believing, knowing, thinking etc. that constitute the true or false propositional secondary language games of slow thinking that are the network of cognitive illusions that constitute the second-self personality of which we are so enamored. W dissects hundreds of language games showing how the true-only perceptions, memories and reflexive actions of S1 grade into the thinking, remembering, and understanding of S2 dispositions, and many of his examples also address the nature/nurture issue explicitly. With this evolutionary perspective, his later works are a breathtaking revelation of human nature that is entirely current and has never been equaled. Many perspectives have heuristic value, but I find that this evolutionary two systems perspective illuminates all higher behavior. Dobzhansky famously commented: "Nothing in biology makes sense except in the light of evolution." And nothing in philosophy makes sense except in the light of evolutionary psychology.

The common ideas (e.g., the subtitle of one of Pinker's books "The Stuff of Thought: language as a window into human nature") that language is a window on or some sort of translation of our thinking or even (Fodor) that there must be some other "Language of Thought" of which it is a translation, were rejected by W (and likewise by S), who tried to show, with hundreds of continually reanalyzed perspicacious examples of language in action, that language is the best picture we can ever get of thinking, the mind and human nature, and W's whole corpus can be regarded as the development of this idea. Long before Searle, he rejected the idea that the Bottom Up approaches of physiology, experimental psychology and computation

(e.g., Behaviorism, Functionalism, Strong AI, Dynamic Systems Theory, Computational Theory of Mind, etc.) could reveal what his Top Down deconstructions of Language Games (LG's) did. The principal difficulties he noted are to understand what is always in front of our eyes (we can now see this as obliviousness to System 1 (roughly what S calls 'the phenomenological illusion') and to capture vagueness ("The greatest difficulty in these investigations is to find a way of representing vagueness" LPP1, 347). And so, speech (i.e., oral muscle contractions, the principal way we interact) is not a window into the mind but is the mind itself, which is expressed by acoustic blasts about past, present and future acts (i.e., our speech using the later evolved Secondary Language Games (SLG's) of the Second Self--the dispositions --imagining, knowing, meaning, believing, intending etc.).

As with his other aphorisms, I suggest one should take seriously W's comment that even if God could look into our mind he could not see what we are thinking--this should be the motto of the Embodied Mind and, as S makes clear, of Cognitive Psychology. But God could see what we are perceiving and remembering and our reflexive thinking, since these S1 functions are always causal mental states while S2 dispositions are only potentially CMS. This is not a theory but a fact about our grammar and our physiology. S muddies the waters here because he refers to dispositions as mental states as well, but as W did long ago, he shows that the language of causality just does not apply to the higher order emergent S2 descriptions—again not a theory but a description about how language (thinking) works. This brings up another point that is prominent in W but denied by S, that all we can do is give descriptions and not a theory. S insists he is providing theories but of course "theory" and "description" are language games too and it seems to me S's theory is usually W's description—a rose by any other name…. W's point was that by sticking to perspicacious examples that we all know to be true accounts of our behavior, we avoid the quicksand of theories that try to account for ALL behavior (ALL language games), while S wants to generalize and inevitably goes astray (he gives several examples of his own mistakes in PNC). As S and others endlessly modify their theories to account for the multifarious language games they get closer and closer to describing behavior by way of numerous examples as did W.

Some of W's favorite topics in his later second and his third periods are the different (but interdigitating) LG's of fast and slow thinking (System 1 and 2 or roughly Primary Language Games (PLG's) and Secondary Language Games (SLG's) of the Inner and the Outer--see e.g., Johnston-'Wittgenstein: Rethinking the Inner' on how confusing the two is a major industry in philosophy and psychology), the

impossibility of private language and the axiomatic structure of all behavior. Verbs like 'thinking', 'seeing' first described S1 functions but as S2 evolved they came to be applied to it as well, leading to the whole mythology of inner resulting from e.g., trying to refer to imagining as if it were seeing pictures inside the brain. The PLG's are utterances by and descriptions of our involuntary, System 1, fast thinking, mirror neuron, true only, nonpropositional, mental states- our perceptions and memories and involuntary acts (including System 1 Truths and UA1 (Understanding of Agency 1) and Emotions1- such as joy, love, anger) which can be described causally, while the evolutionarily later SLG's are expressions or descriptions of voluntary, System 2, slow thinking, mentalizing neurons, testable true or false, propositional, Truth2 and UA2 and Emotions2- joyfulness, loving, hating, the dispositional (and often counterfactual) imagining, supposing, intending, thinking, knowing, believing, etc. which can only be described in terms of reasons (i.e., it's just a fact that attempts to describe System 2 in terms of neurochemistry, atomic physics, mathematics, just make no sense--see W for many examples and Searle for good disquisitions on this).

It is not possible to describe the automatisms of System 1 in terms of reasons (e.g., `I see that as an apple because...') unless you want to give a reason in terms of EP, genetics, physiology, and as W has demonstrated repeatedly it is meaningless to give "explanations" with the proviso that they will make sense in the future--`Nothing is hidden'--they make sense now or never--(e.g., "The greatest danger here is wanting to observe oneself." LWPP1, 459).

A powerful heuristic is to separate behavior and experience into Intentionality 1 and Intentionality 2 (e.g., Thinking 1 and Thinking 2, Emotions 1 and Emotions 2 etc.) and even into Truths 1 (T only axioms) and Truths 2 (empirical extensions or "Theorems" which result from the logical extension of Truths 1). W recognized that `Nothing is Hidden'--i.e., our whole psychology and all the answers to all philosophical questions are here in our language (our life) and that the difficulty is not to find the answers but to recognize them as always here in front of us--we just have to stop trying to look deeper.

Once we understand W, we realize the absurdity of regarding "language philosophy" as a separate study apart from other areas of behavior, since language is just another name for the mind. And, when W says that understanding behavior is in no way dependent on the progress of psychology (e.g., his oft-quoted assertion "The confusion and barrenness of psychology is not to be explained by calling it a `young science' --but cf. another comment that I have never seen quoted-- "Is scientific progress useful to philosophy? Certainly. The realities that are discovered

lighten the philosophers task. Imagining possibilities." (LWPP1,807). So, he is not legislating the boundaries of science but pointing out that our behavior (mostly speech) is the clearest picture possible of our psychology and that all discussions of higher order behavior are plagued by conceptual confusions.

FMRI, PET, TCMS, iRNA, computational analogs, AI and all the rest are fascinating and powerful ways to extend our innate axiomatic psychology, to provide the physical basis for our behavior and facilitate our analysis of language games which nevertheless remain unexplainable--EP just is this way-- and unchanged. The true-only axioms, most thoroughly explored in 'On Certainty', are W's (and later Searle's) "bedrock" or "background" i.e., evolutionary psychology, which are traceable to the automated true-only reactions of bacteria and their descendants (e.g., humans), which evolved and operate by the mechanism of inclusive fitness (IF)--see Bourke's superb "Principles of Social Evolution".

W insisted that we should regard our analysis of behavior as descriptions rather than explanations, but of course these too are complex language games and one person's description is another's explanation. Beginning with their innate true-only, nonempirical (automated and nonchangeable) responses to the world, animals extend their axiomatic understanding via deductions into further true only understandings ("theorems" as we might call them, but this is a complex language game even in the context of mathematics).

Tyrannosaurs and mesons become as unchallengeable as the existence of our two hands or our breathing. This dramatically changes one's view of human nature. Theory of Mind (TOM) is not a theory at all but a group of true- only Understandings of Agency (UA a term I devised 10 years ago) which newborn animals (including flies and worms if UA is suitably defined) have, and which subsequently evolved greatly (in higher eukaryotes). However, as I note here, W made it very clear that for much of intentionality there are System 1 and System 2 versions (language games)-the fast unconscious UA1 and the Slow conscious UA2 and of course these are heuristics for multifaceted phenomena. Although the raw material for S2 is S1, S2 also feeds back into S1— higher cortical feedback to the lowest levels of perception, memory, reflexive thinking that is a fundamental of psychology. Many of W's examples explore this two way street (e.g., see the discussions of the duck/rabbit and 'seeing as' in Johnston).

The "Theory" of Evolution ceased to be a theory for any normal, rational, intelligent person before the end of the 19th century and for Darwin at least half a century earlier. One cannot help but incorporate Tyrannosaurus rex and all that is relevant

to it into our true only background via the inexorable workings of EP. Once one gets the logical (psychological) necessity of this, it is truly stupefying that even the brightest and the best seem not to grasp this most basic fact of human life (with a tip of the hat to Kant, Searle and a few others) which was laid out in great detail in "On Certainty". Incidentally, the equation of logic and our axiomatic psychology is essential to understanding W and human nature (as Daniele Moyal-Sharrock (DMS), but afaik nobody else, points out).

So, most of our shared public experience (culture) becomes a true-only extension of our axiomatic EP and cannot be found mistaken without threatening our sanity. Football or Britney Spears cannot just vanish from my or our memory and vocabulary as these concepts, ideas, events, developed out of and are tied to countless others in the true only network that begins with birth and extends in all directions to encompass much of our awareness and memory. A corollary, nicely explained by DMS and elucidated in his own unique manner by Searle, is that the skeptical view of the world and other minds (and a mountain of other nonsense including the Blank Slate) cannot really get a foothold, as "reality" is the result of involuntary fast thinking axioms and not testable true or false propositions.

I think it is clear that the innate true-only axioms W is occupied with throughout his work, and almost exclusively in OC (his last work `On Certainty'), are equivalent to the fast thinking or System 1 that is at the center of current research (e.g., see Kahneman--"Thinking Fast and Slow", but he has no idea W laid out the framework some 75 years ago), which is involuntary and unconscious and which corresponds to the mental states of perception (including UOA1) and memory and involuntary acts, as W notes over and over in endless examples. One might call these "intracerebral reflexes"(maybe 99% of all our cerebration if measured by energy use in the brain).

Our slow or reflective, more or less "conscious" (beware another network of language games!) second-self brain activity corresponds to what W characterized as "dispositions" or "inclinations", which refer to abilities or possible actions, are not mental states (or not in the same sense), and do not have any definite time of occurrence and/or duration. But disposition words like "knowing", "understanding", "thinking", "believing", which W discussed extensively, have at least two basic uses. One is a peculiar philosophical use (but graduating into everyday uses) exemplified by Moore (whose papers inspired W to write OC), which refers to the true-only sentences resulting from direct perceptions and memory, i.e., our innate axiomatic S1 psychology (`I know these are my hands'), and the S2 one, which is their normal use as dispositions, which can be acted out,

and which can become true or false (`I know my way home').

The investigation of involuntary fast thinking has revolutionized psychology, economics (e.g., Kahneman's Nobel prize) and other disciplines under names like "cognitive illusions", "priming", "framing", "heuristics" and "biases". Of course these too are language games so there will be more and less useful ways to use these words, and studies and discussions will vary from "pure" System 1 to combinations of 1 and 2 (the norm as W made clear), but presumably not ever of slow System 2 dispositional thinking only, since any System 2 thought or intentional action cannot occur without involving much of the intricate network of "cognitive modules", "inference engines", "intracerebral reflexes", "automatisms", "cognitive axioms", "background" or "bedrock" (as W and later Searle call our EP).

One of W's recurring themes was what is now called Theory of Mind (TOM), or as I prefer Understanding of Agency (UA), but of course he did not use these terms, which is the subject of major research efforts now. I recommend consulting the work of Ian Apperly, who is carefully dissecting UA1 and 2 and who has recently become aware of one of the leading Wittgensteinian philosophers Daniel Hutto, since Hutto has now characterized UA1 as a fantasy (or rather insists that there is no `Theory' nor representation involved in UA1--that being reserved for UA2). However, like other psychologists, Apperly has no idea W laid the groundwork for this between 60 and 80 years ago.

Another point made countless times by W was that our conscious mental life is epiphenomenal in the sense that it does not accurately describe nor determine how we act—now a pillar of the behavioral sciences. See 'The Phenomenological Illusion' in PNC for a grand example from philosophy. It is an obvious corollary of W's and S's descriptive psychology that it is the unconscious automatisms of System 1 that dominate and describe behavior and that the later evolved conscious dispositions (thinking, remembering, loving, desiring, regretting etc.) are mere icing on the cake. This is most strikingly borne out by the latest experimental psychology, some of which is nicely summarized by Kahneman in the book cited (see e.g., the chapter `Two Selves', but of course there is a huge volume of recent work he does not cite and an endless stream of pop and pro books issuing). It is an easily defensible view that most of the burgeoning literature on cognitive illusions, automatisms and higher order thought is wholly compatible with and straightforwardly deducible from W.

Regarding my view of W as the major pioneer in EP, it seems nobody has noticed that he very clearly explained several times specifically and many times in passing,

the psychology behind what later became known as the Wason Test--long a mainstay of EP research.

Finally, let me suggest that with this perspective, W is not obscure, difficult or irrelevant but scintillating, profound and crystal clear, that he writes aphoristically and telegraphically because we think and behave that way, and that to miss him is to miss one of the greatest intellectual adventures possible.

Now that we have a reasonable start on the Logical Structure of Rationality (the Descriptive Psychology of Higher Order Thought) laid out we can look at the table of Intentionality that results from this work, which I have constructed over the last few years. It is based on a much simpler one from Searle, which in turn owes much to Wittgenstein. I have also incorporated in modified form tables being used by current researchers in the psychology of thinking processes which are evidenced in the last 9 rows. It should prove interesting to compare it with those in Peter Hacker's 3 recent volumes on Human Nature. I offer this table as an heuristic for describing behavior that I find more complete and useful than any other framework I have seen and not as a final or complete analysis, which would have to be three dimensional with hundreds (at least) of arrows going in many directions with many (perhaps all) pathways between S1 and S2 being bidirectional. Also, the very distinction between S1 and S2, cognition and willing, perception and memory, between feeling, knowing, believing and expecting etc. are arbitrary--that is, as W demonstrated, all words are contextually sensitive and most have several utterly different uses (meanings or COS). Many complex charts have been published by scientists but I find them of minimal utility when thinking about behavior (as opposed to thinking about brain function). Each level of description may be useful in certain contexts but I find that being coarser or finer limits usefulness.

The Logical Structure of Rationality (LSR), or the Logical Structure of Mind (LSM), the Logical Structure of Behavior (LSB), the Logical Structure of Thought (LST), the Logical Structure of Consciousness (LSC), the Logical Structure of Personality (LSP), the Descriptive Psychology of Consciousness (DSC), the Descriptive Psychology of Higher Order Thought (DPHOT), Intentionality-the classical philosophical term.

System 1 is involuntary, reflexive or automated "Rules" R1 while Thinking (Cognition) has no gaps and is voluntary or deliberative "Rules" R2 and Willing (Volition) has 3 gaps (see Searle)

I suggest we can describe behavior more clearly by changing Searle's "impose conditions of satisfaction on conditions of satisfaction" to "relate mental states to the world by moving muscles"—i.e., talking, writing and doing, and his "mind to world direction of fit" and "world to mind direction of fit" by "cause originates in the mind" and "cause originates in the world" S1 is only upwardly causal (world to mind) and contentless (lacking representations or information) while S2 has content and is downwardly causal (mind to world). I have adopted my terminology in this table.

I have made a detailed explanation of this table in my other writings.

	Disposition*	Emotion	Memory	Perception	Desire	PI**	IA***	Action/ Word
Cause Originates From****	World	World	World	World	Mind	Mind	Mind	Mind
Causes Changes In*****	None	Mind	Mind	Mind	None	World	World	World
Causally Self Reflexive******	No	Yes	Yes	Yes	No	Yes	Yes	Yes
True or False (Testable)	Yes	T only	T only	T only	Yes	Yes	Yes	Yes
Public Conditions of Satisfaction	Yes	Yes/No	Yes/No	No	Yes/No	Yes	No	Yes
Describe A Mental State	No	Yes	Yes	Yes	No	No	Yes/No	Yes
Evolutionary Priority	5	4	2,3	1	5	3	2	2
Voluntary Content	Yes	No	No	No	No	Yes	Yes	Yes
Voluntary Initiation	Yes/No	No	Yes	No	Yes/No	Yes	Yes	Yes
Cognitive System *******	2	1	2/1	1	2 / 1	2	1	2
Change Intensity	No	Yes	Yes	Yes	Yes	No	No	No
Precise Duration	No	Yes	Yes	Yes	No	No	Yes	Yes
Time, Place (H+N, T+T) ********	TT	HN	HN	HN	TT	TT	HN	HN
Special Quality	No	Yes	No	Yes	No	No	No	No
Localized in Body	No	No	No	Yes	No	No	No	Yes
Bodily Expressions	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Self Contradictions	No	Yes	No	No	Yes	No	No	No
Needs a Self	Yes	Yes/No	No	No	Yes	No	No	No
Needs Language	Yes	No	No	No	No	No	No	Yes/No

FROM DECISION RESEARCH

	Disposition*	Emotion	Memory	Perception	Desire	PI**	IA***	Action/ Word
Subliminal Effects	No	Yes/No	Yes	Yes	No	No	No	Yes/No
Associative/ Rule Based	RB	A/RB	A	A	A/RB	RB	RB	RB
Context Dependent/ Abstract	A	CD/A	CD	CD	CD/A	A	CD/A	CD/A
Serial/Parallel	S	S/P	P	P	S/P	S	S	S
Heuristic/ Analytic	A	H/A	H	H	H/A	A	A	A
Needs Working Memory	Yes	No	No	No	No	Yes	Yes	Yes
General Intelligence Dependent	Yes	No	No	No	Yes/No	Yes	Yes	Yes
Cognitive Loading Inhibits	Yes	Yes/No	No	No	Yes	Yes	Yes	Yes
Arousal Facilitates or Inhibits	I	F/I	F	F	I	I	I	I

Public Conditions of Satisfaction of S2 are often referred to by Searle and others as COS, Representations, truthmakers or meanings (or COS2 by myself), while the automatic results of S1 are designated as presentations by others (or COS1 by myself).

* **Aka Inclinations, Capabilities, Preferences, Representations, possible actions etc.**

** **Searle's Prior Intentions**

*** **Searle's Intention In Action**

**** **Searle's Direction of Fit**

***** **Searle's Direction of Causation**

****** **(Mental State instantiates--Causes or Fulfills Itself). Searle formerly called this causally self- referential.**

******* **Tversky/Kahneman/Frederick/Evans/Stanovich defined cognitive systems.**

******** **Here and Now or There and Then**

One should always keep in mind Wittgenstein's discovery that after we have described the possible uses (meanings, truthmakers, Conditions of Satisfaction) of language in a particular context, we have exhausted its interest, and attempts at explanation (i.e., philosophy) only get us further away from the truth. It is critical to note that this table is only a highly simplified context-free heuristic and each use of a word must be examined in its context. The best examination of context variation is in Peter Hacker's recent 3 volumes on Human Nature, which provide numerous tables and charts that should be compared with this one.

Those wishing a comprehensive up to date account of Wittgenstein, Searle and their analysis of behavior from the modern two systems view may consult my book The Logical Structure of Philosophy, Psychology, Mind and Language as Revealed in Wittgenstein and Searle 2nd ed(2019).

Now for some comments on Searle's PNC. The essays in PNC are mostly already published during the last decade (though some have been updated), along with one unpublished item, and nothing here will come as a surprise to those who have kept up with his work. Like W, he is regarded by many as the best standup philosopher of his time and his written work is solid as a rock and groundbreaking throughout. However, his failure to take the later W seriously enough leads to some mistakes and confusions.

On p7 he twice notes that our certainty about basic facts is due to the overwhelming weight of reason supporting our claims, but W showed definitively in 'On Certainty' that there is no possibility of doubting the true- only axiomatic structure of our System 1 perceptions, memories and thoughts, since it is itself the basis for judgment and cannot itself be judged. In the first sentence on p8 he tells us that certainty is revisable, but this kind of 'certainty', which we might call Certainty2, is the result of extending our axiomatic and nonrevisable certainty (Certainty1) via experience and is utterly different as it is propositional (true or false). This is of course a classic example of the "battle against the bewitchment of our intelligence by language" which W demonstrated over and over again. One word- two (or many) distinct uses.

On p10 he chastises W for his antipathy to theorizing but as I noted above, 'theorizing' is another language game (LG) and there is a vast gulf between a general description of behavior with few well worked out examples and one that emerges from a large number of such that is not subject to many counterexamples. Evolution in its early days was a theory with limited clear examples but soon

became just a summary of a vast body of examples and a theory in a quite different sense. Likewise, with a theory one might make as a summary of a thousand pages of W's examples and one resulting from ten pages.

Again, on p12, 'consciousness' is the result of automated System 1 functioning that is 'subjective' in several quite different senses, and not, in the normal case, a matter of evidence but a true-only understanding in our own case and a true-only perception in the case of others.

As I read p13 I thought: "Can I be feeling excruciating pain and go on as if nothing is wrong?" No! —this would not be 'pain' in the same sense. "The inner experience stands in need of outer criteria" (W), and Searle seems to miss this. See W or Johnston.

As I read the next few pages, I felt that W has a much better grasp of the mind/language connection, as he regards them as synonymous in many contexts, and his work is a brilliant exposition of mind as exemplified in numerous perspicacious examples of language use. As quoted above, "Now if it is not the causal connections which we are concerned with, then the activities of the mind lie open before us." And as explained above I feel the questions with which S ends section 3 are largely answered by considering W's OC from the standpoint of the two systems. Likewise, for section 6 on the philosophy of science. Rodych has done an article on Popper vs W which I thought superb at the time, but I will have to reread it to make sure. Finally, on p25, one can deny that any revision of our concepts (language games) of causation or free will are necessary or even possible. You can read just about any page of W for the reasons. It's one thing to say bizarre things about the world using examples from quantum mechanics, uncertainty etc., but it is another to say anything relevant to our normal use of words.

On p31, 36 etc., we again encounter the incessant problems (in philosophy and life) of identical words glossing over the huge differences in LG's of 'belief', 'seeing' etc., as applied to S1 which is composed of mental states in the present only, and S2 which is not. The rest of the chapter summarizes his work on 'social glue' which, from an EP, Wittgensteinian perspective, is the automatic fast actions of S1 producing the slow dispositions of S2 which are inexorably and universally expanded during personal development into a wide array of automatic unconscious deontic relationships with others, and arbitrarily into cultural variations on them.

Chapters 3 to 5 contain his well-known arguments against the mechanical view of mind which seem to me definitive. I have read whole books of responses to them

and I agree with S that they all miss the very simple logical (psychological) points he makes (and which, by and large, W made half a century earlier before there were computers). To put it in my terms, S1 is composed of unconscious, fast, physical, causal, automatic, nonpropositional, true only mental states, while slow S2 can only coherently be described in terms of reasons for actions that are more or less conscious dispositions to behavior (potential actions) that are or can become propositional (T or F). Computers and the rest of nature have only derived intentionality that is dependent on our perspective while higher animals have primary intentionality that is independent of perspective. As S and W appreciate, the great irony is that these materialistic or mechanical reductions of psychology masquerade as cutting edge science, but in fact they are utterly anti-scientific. Philosophy (descriptive psychology) and cognitive psychology (freed of superstition) are becoming hand in glove and it is Hofstadter, Dennett, Kurzweil etc., who are left out in the cold.

Page 62 nicely summarizes one of his arguments but p63 shows that he has still not quite let go of the blank slate as he tries to explain trends in society in terms of the cultural extensions of S2. As he does in many other places in his writings, he gives cultural, historical reasons for behaviorism, but it seems quite obvious to me (as it was to W) that the mechanical view of mind exists for the same reason as nearly all behavior—it is the default operation of our EP which seeks explanations in terms of what we can deliberately think through slowly, rather than in the automated S1, of which we mostly remain oblivious (i.e., an instance of what Searle has name "The Phenomenological Illusion). Again, on p65 I find W's description of our axiomatic inherited psychology and its extensions in his OC and other works to be deeper than S's (or anyone's), and so we are NOT 'confident' that dogs are conscious, but rather it is not clear what doubting it means (what COS are there that can make it false?).

Chapter 5 nicely demolishes CTM, LOT etc., noting that 'computation', 'information', 'syntax', 'algorithm', 'logic', 'program', etc., are observer relative (i.e., psychological) terms and have no physical or mathematical meaning in this psychological sense, but of course there are other senses they have been given recently as science has developed. Again, people are bewitched by the use of the same word into ignoring that vast difference in its use (meaning). All extensions of classic Wittgenstein, and I recommend Hutto's papers too.

Chapter 6 "The Phenomenological Illusion" (TPI) is by far my favorite, and, while demolishing phenomenology, it shows both his supreme logical abilities and his failure to grasp the full power of both the later W, and the great heuristic value of

recent psychological research on the two selves. It is clear as crystal that TPI is due to obliviousness to the automatisms of S1 and to taking the slow conscious thinking of S2 as not only primary but as all there is. This is classic Blank Slate blindness. It is also clear that W showed this some 60 years earlier and also gave the reason for it in the primacy of the true-only unconscious automatic axiomatic network of our innate System 1. Like so many others, Searle dances all around it but never quite gets there. Very roughly, regarding 'observer independent' features of the world as S1 and 'observer dependent' features as S2 should prove very revealing. As S notes, Heidegger and the others have the ontology exactly backwards, but of course so does almost everyone due to the defaults of their EP.

But the really important thing is that S does not take the next step to realizing that TPI is not just a failing of a few philosophers, but a universal blindness to our EP that is itself built into EP. He actually states this in almost these words at one point, but if he really got it how could he fail to point out its immense implications for the world.

With rare exceptions (e.g., the Jaina Tirthankaras going back over 5000 years to the beginnings of the Indus civilization and most recently and remarkably Osho, Buddha, Jesus, Bodhidharma, Da Free John etc., we are all meat puppets stumbling through life on our genetically programmed mission to destroy the earth. Our almost total preoccupation with using the second self S2 personality to indulge the infantile gratifications of S1 is creating Hell On Earth. As with all organisms, it's only about reproduction and accumulating resources therefor. Yes, much noise about Global Warming and the imminent collapse of industrial civilization in the next century, but nothing is likely to stop it. S1 writes the play and S2 acts it out. Dick and Jane just want to play house—this is mommy and this is daddy and this and this and this is baby. Perhaps one could say that TPI is that we are humans and not just another primate.

Chapter 7 on the nature of the self is good but nothing really struck me as new. Chapter 8 on property dualism is much more interesting even though mostly a rehash of his previous work. The last of his opening quotes above sums this up, and of course the insistence on the critical nature of first person ontology is totally Wittgensteinian. The only big blunder I see is his blank slate or (cultural) type of explanation on p 158 for the errors of dualism, when in my view, it is clearly another instance of TPI—a mistake which he (and nearly everyone else) has made many times, and repeats on p177 etc., in the otherwise superb Chapter 9. The genes program S1 which (mostly) pulls the strings (contracts the muscles) of the meat puppets via S2. End of story. Again, he needs to read my comments on W's OC so

he changes the "good reason to believe" at the bottom of p171 and the top of p172 to "knows" (in the true-only sense i.e., K1).

A critical point is made again on p169. "Thus, saying something and meaning it involves two conditions of satisfaction. First, the condition of satisfaction that the utterance will be produced, and second, that the utterance itself shall have conditions of satisfaction." One way of regarding this is that the unconscious automatic System 1 activates the higher cortical conscious personality of System 2, bringing about throat muscle contractions which inform others that it sees the world in certain ways, which commit it to potential actions. A huge advance over prelinguistic or protolinguistic interactions in which only gross muscle movements were able to convey very limited information about intentions and S makes a similar point in Chapter 10.

His last chapter "The Unity of the Proposition" (previously unpublished) would also benefit greatly from reading W's "On Certainty" or DMS's two books on OC (see my reviews) as they make clear the difference between true only sentences describing S1 and true or false propositions describing S2. This strikes me as a far superior approach to S's taking S1 perceptions as propositional since they only become T or F after one begins thinking about them in S2. However, his point that propositions permit statements of actual or potential truth and falsity, of past and future and fantasy, and thus provide a huge advance over pre or protolinguistic society, is cogent. As he states it "A proposition is anything at all that can determine a condition of satisfaction…and a condition of satisfaction… is that such and such is the case." Or, one needs to add, that might be or might have been or might be imagined to be the case.

Overall, PNC is a good summary of the many substantial advances over Wittgenstein resulting from S's half century of work, but in my view, W still is unequaled once you grasp what he is saying. Ideally, they should be read together: Searle for the clear coherent prose and generalizations, illustrated with W's perspicacious examples and brilliant aphorisms. If I were much younger I would write a book doing exactly that.